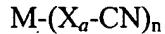


**What is claimed is:**

1. Process for making a fluoropolymer having nitrile endgroups, said process comprising a free radical polymerizing one or more fluorinated monomers in the presence of a nitrile group containing salt or a nitrile group containing pseudohalogen compound.

5           2. Process according to claim 1 wherein polymerizing is an aqueous emulsion polymerization and said nitrile group containing salt is a water soluble salt.

10           3. Process according to claim 2 wherein said nitrile group containing salt corresponds to the formula:



wherein M represents a mono- or multi-valent cation, X is O, S, Se or N,  $\alpha$  is 0 or 1 and n corresponds to the valence of the cation.

15           4. Process according to claim 3 wherein said nitrile group containing salt is selected from an ammonium salt, alkali metal salt, alkaline earth metal salt and tetraalkylammonium salt of cyanate, thiocyanate, or cyanide.

20           5. Process according to claim 1 wherein said fluorinated monomers comprise one or more fluorinated olefins and optionally one or more fluorinated vinyl ethers.

6. Process according to claim 1 wherein said fluorinated monomers comprise one or more fluorinated olefins and at least one fluorinated monomer comprising a nitrile group.

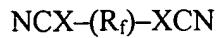
25           7. Process according to claim 1 wherein said polymerization further involves one or more non-fluorinated comonomers.

30           8. Process according to claim 1 wherein said fluoropolymer is a substantially amorphous fluoropolymer.

9. Method of making a fluoroelastomer composition comprising combining a fluoropolymer through a process as defined in claim 1 with a cure composition.

10. Method of making a fluoroelastomer comprising combining a fluoropolymer through a process as defined in claim 1 with a cure composition and curing the thus obtained fluoroelastomer composition.

5 11. A nitrile group containing fluoroelastomer which is in the form of a solid, has nitrile groups at both ends and is represented by the formula



where X = O or S and R<sub>f</sub> is a divalent fluoroelastomer chain.